WE CLAIM:

1. A system for modulating an RF carrier comprising:

a lowpass filter with input connected to the RF carrier, said lowpass filter producing a first phase shifted carrier output;

a highpass filter with input connected to the RF carrier, said highpass filter producing a second phase shifted carrier output;

a data port for receiving data bit information; and

a switch connected to an output of said lowpass filter and connected to an output of said highpass filter, said switch configured to select and output either said first phase shifted carrier output from said lowpass filter or said second phase shifted carrier output from said highpass filter depending on a switching state, said switching state determined by said data bit information at said data port.

2. The system of claim 1 wherein said lowpass filter phase shifts the RF carrier approximately -90 degrees to produce said first phase shifted carrier output.

3. The system of claim 1 wherein said highpass filter phase shifts the RF carrier approximately +90 degrees to produce said second phase shifted carrier output.

4. The system of claim 1 further comprising a power divider configured to split the RF carrier into two equal amplitude signals and feed the RF carrier into said lowpass filter and into said highpass filter.

5. The system of claim 1 further comprising a notch filter centered about the RF carrier frequency, said data bit information at said data port being fed through said notch filter to said switch.

6. The system of claim 1 wherein said system is fabricated using MMIC.

7. The system of claim 1 wherein said system is fabricated using ASIC.

8. A system for modulating an RF carrier comprising:

a lowpass filter with input connected to the RF carrier, said lowpass filter producing a phase shifted carrier output;

a highpass filter with input connected to the RF carrier, said highpass filter producing a phase shifted carrier output;

a first BPSK modulator with first input connected to said lowpass filter, said first BPSK modulator comprising:

a first lowpass filter with input connected to said first input, said first lowpass filter producing a first phase shifted carrier output;

a first highpass filter with input connected to said first input, said first highpass filter producing a second phase shifted carrier output;

a first data port for receiving a first data bit information; and

a first switch connected to an output of said first lowpass filter and connected to an output of said first highpass filter, said first switch configured to select and output either said first phase shifted carrier output or said second phase shifted carrier output depending on a first switching state, said first switching state determined by said first data bit information at said first data port;

a second BPSK modulator with second input connected to said highpass filter, said second BPSK modulator comprising

a second lowpass filter with input connected to said second input, said second lowpass filter producing a third phase shifted carrier output;

a second highpass filter with input connected to said second input, said second highpass filter producing a fourth phase shifted

carrier output;

a second data port for receiving a second data bit information; and

a second switch connected to an output of said second lowpass filter and connected to an output of said second highpass filter, said second switch configured to select and output either said third phase shifted carrier output or said fourth phase shifted carrier output depending on a second switching state, said second switching state determined by said second data bit information at said second data port; and

a power divider connected to an output of said first BPSK modulator and connected to an output of said second BPSK modulator, said power divider configured to produce a QPSK output vector sum of said output of said first BPSK modulator and said output of said second BPSK modulator.

9. The system of claim 8 wherein said lowpass filter phase shifts the RF carrier approximately -45 degrees to produce said phase shifted carrier output.

10. The system of claim 8 wherein said highpass filter phase shifts the RF carrier approximately +45 degrees to produce said phase shifted carrier output.

11. The system of claim 8 wherein said first lowpass filter and said second lowpass filter phase shift the RF carrier an additional approximately -90 degrees to produce said first phase shifted carrier output and said third phase shifted carrier output, respectively.

12. The system of claim 8 wherein said first highpass filter and said second highpass filter phase shift the RF carrier an additional approximately +90 degrees to produce said second phase shifted carrier output and said

fourth phase shifted carrier output, respectively.

13. The system of claim 8 further comprising a power divider configured to split the RF carrier into two equal amplitude signals and feed the RF carrier into said lowpass filter and into said highpass filter.

14. The system of claim 8 further comprising a first notch filter centered about the RF carrier frequency, said first data bit information at said first data port being fed through said first notch filter to said first switch.

15. The system of claim 8 further comprising a second notch filter centered about the RF carrier frequency, said second data bit information at said second data port being fed through said second notch filter to said second switch.

16. The system of claim 8 wherein said system is fabricated using MMIC.

17. The system of claim 8 wherein said system is fabricated using ASIC.

18. A QAM modulation system for modulating an RF carrier comprising:

a first QPSK modulator comprising:

a lowpass filter with input connected to the RF carrier, said lowpass filter shifting the RF carrier approximately -45 degrees;

a highpass filter with input connected to the RF carrier, said highpass filter shifting the RF carrier approximately +45 degrees;

a first BPSK modulator with first input connected to said lowpass filter, said first BPSK modulator comprising a first lowpass filter with

input connected to said first input, said first lowpass filter producing a first phase shifted carrier output shifted approximately -135 degrees; a first highpass filter with input connected to said first input, said first highpass filter producing a second phase shifted carrier output shifted approximately +45 degrees; a first data port for receiving a first data bit information; and a first switch connected to an output of said first lowpass filter and connected to an output of said first highpass filter, said first switch configured to select and output either said first phase shifted carrier output or said second phase shifted carrier output depending on a first switching state, said first switching state determined by said first data bit information at said first data port;

a second BPSK modulator substantially identical in configuration to said first BPSK modulator, with second input connected to said high pass filter and configured to select and output either a third phase shifted carrier output shifted approximately -45 degrees or a fourth phase shifted carrier output shifted approximately +135 degrees depending on a second switching state, said second switching state determined by said second data bit information at second data port

a second QPSK modulator; substantially identical in configuration to said first QPSK modulator, with input connected to the RF carrier and configured to produce a fifth phase shifted carrier output shifted approximately -135 degrees or a sixth phase shifted carrier output shifted approximately +45 degrees depending on a third switching state, said third switching state determined by a third data bit information at a third data port; and a seventh phase shifted carrier output shifted approximately -45 degrees or an eighth phase shifted carrier output shifted approximately +135 degrees depending on a fourth switching state, said fourth switching state determined by a fourth data bit information at a fourth data port;

an attenuator with input connected to an output of said second QPSK modulator; and

a vector summer connected to an output of said first QPSK

modulator and connected to an output of said attenuator, said vector summer configured to produce a QAM output vector sum of said output of said first QPSK modulator and said output of said attenuator.

19. A method for modulating an RF carrier comprising steps of:

passing the RF carrier through a lowpass filter, said lowpass filter producing a first phase shifted carrier output;

passing the RF carrier through a highpass filter, said highpass filter producing a second phase shifted carrier output;

providing data bit information to a data port; and

employing a switch connected to an output of said lowpass filter and connected to an output of said highpass filter to select and output either said first phase shifted carrier output from said lowpass filter or said second phase shifted carrier output from said highpass filter depending on a switching state, said switching state determined by said data bit information provided to said data port.